Beyond System Reform

The Need for Greater Innovation in School And Schooling

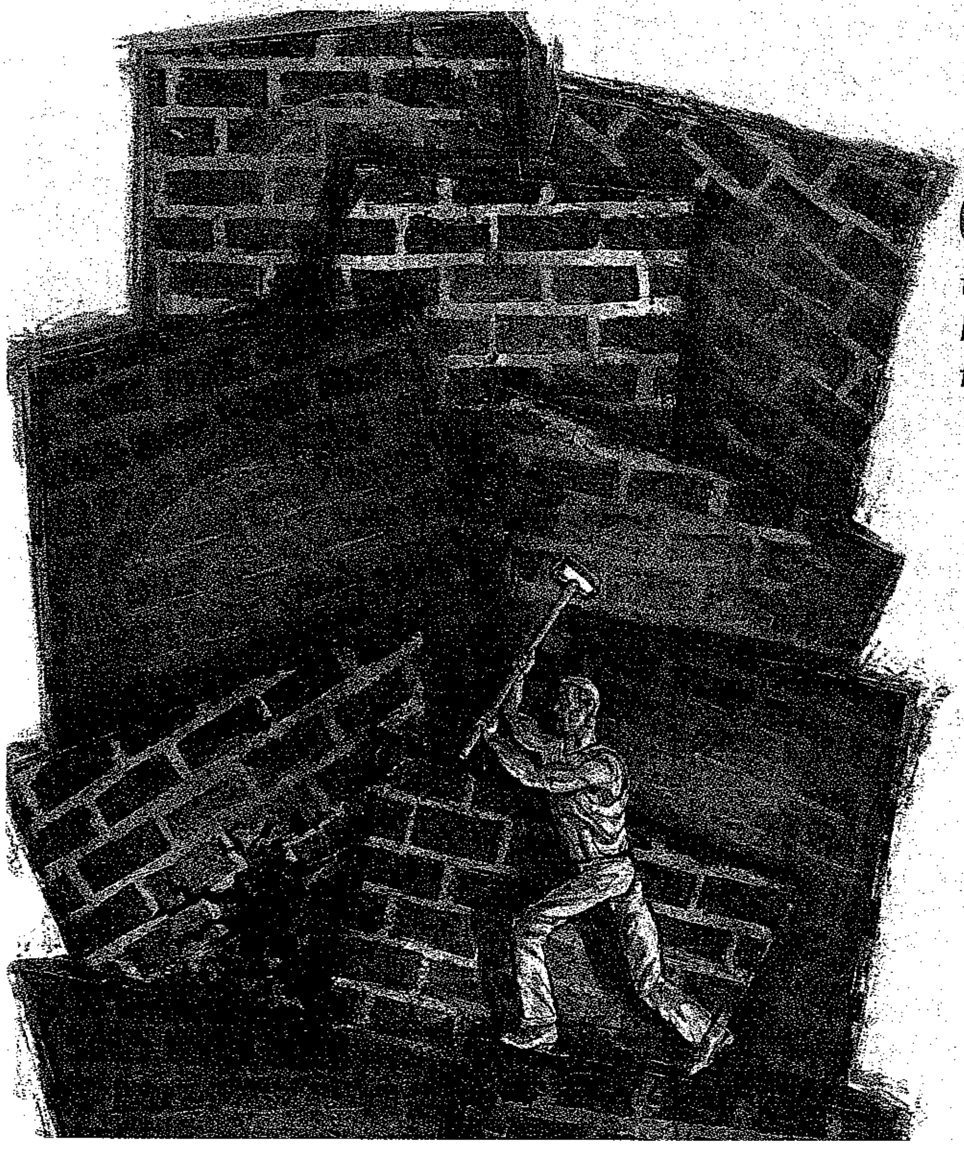
By **Ted Kolderie**

It's easy to see why people might feel that education policy has hit the wall. The federal No Child Left Behind Act is neither reauthorized nor reformed. Growing numbers of schools are reported as "failing." The despair about high school seems universal. Education is essentially absent from the 2008 presidential debates. Few governors clamor to be an "education governor."

This causes people to question strategy, to ask: Are the system reforms failing? With standards and accountability, why is performance so flat? Are charter schools fulfilling their promise? Why, as the Manhattan Institute senior fellow Sol Stern asked recently, is choice not showing better results?

System reforms are not failing. It is simply becoming clear that, while critically important, they do not and cannot themselves directly improve achievement. Kids don't learn from standards, from accountability, from choice, or from charters. It is an error to connect learning to changes in the "architecture" of K-12. Someone could as easily compare scores in one-story vs. two-story buildings. What would that mean? Kids don't learn from structures. They learn from what they read, see, hear, and do. For achievement to improve, school and schooling have to improve.

The system reforms make that improvement increasingly necessary; they also make change increasingly possible. But they are only half the strategy. To meet its goals, this country must next undertake a serious effort to develop new forms of school and schooling. It is time to redirect K-12 policy toward innovation. In this undertaking, five truths seem important to consider:



1. With attention fixed on system reform, we have not been moving significantly to change traditional school and schooling.

Most of what passes for change and improvement is "inside the box"—marginal changes that look for what works within conventional givens. Some advocates of system reform do not want to change traditional school. Some reforms, as implemented, have in fact strengthened traditional schooling. The general public is comfortable with this. We see the traditional school pictured everywhere: a classroom, kids at desks or tables, a teacher in front of a blackboard. Even one Microsoft ad plugging computers shows kids and desks and blackboard, with no computer in sight.

People in curriculum and instruction have been writing, speaking, and consulting about different and better ways for children to learn. But they find it hard to get their ideas adopted. As one person visualizes it, the process is like sitting in a crowded waiting room where everyone has a black box on his or her knees. Each waits for the door to open to be able to tell the people who run the system how much better kids will learn "if you would use my black box." In this vision, though, cobwebs grow; dust settles. The door does not open.

Some argue that school does not need to change; they say we need students to work harder, teachers to teach better, principals to lead and manage better, and they want traditional school to be more rigorous. But trying harder with the traditional model will not do the job. It is time to be open to new conceptions of school and different approaches to learning.

> "It is an error to connect learning to changes in the 'architecture' of K-12 . . . Kids don't learn from structures. They learn from what they read, see, hear, and do."

2. Traditional school was not designed for the job that now has to be done; it cannot ensure that all students will learn.

Traditional school never did graduate all its students. Nor did it ever educate all students well. That was tolerable when its assignment was to provide opportunity and expand access. Now the assignment is switched, to "achievement." Will all students be able to learn to high standards in the traditional model—one built on the notion of "delivering education" and the technology of instruction by a teacher—simply because we tell schools they have to? Motivation is the issue. If achievement is imperative, then effort is essential; and if effort is essential, then motivation must be central. Conventional school is designed almost to suppress motivation.

At the secondary level, conventional schooling's

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TED KOLDERIE is a senior associate at the Center for Policy Studies, in St. Paul, Minn. His work with the Minnesota-based think tank Education Evolving (www.educationevolving.org) on these issues is presented in "The Other Half of the Strategy," a paper that was released in January.

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course-and-class model is a bus rolling down the highway, moving too fast for some and too slow for others. A teacher points out important markers along the way, but students cannot get off to explore what they find interesting: The bus has to stay on schedule. Most high schools are large. A teacher might see 150 students a day, which makes close relationships between teachers and students, and among students, difficult. For motivation, relationships matter.

It would be a risk to bet everything on traditional school's succeeding. And it's not a necessary risk, since we could simultaneously be trying different models. So to be taking that risk with other people's children is unacceptable.

3. Different and high-potential models of schooling keyed on motivating students and teachers clearly are now possible.

If high school is obsolete, the logical response to that obsolescence is innovation. New forms of secondary schooling are both necessary and possible. Already, innovators are developing alternatives to the "batch processing" of traditional school, with students individualizing their work, learning increasingly from projects, taking courses online, and using digital media to do research. The revolution in the storage and manipulation of information has enormous potential to change the paradigm of schooling from one of teaching to one of learning, increasing motivation by capitalizing on the interest and considerable skills of young people in using these technologies. Teachers' work can be upgraded to planning, advising, evaluating.

Teachers and students are the workers on the job of learning. Deborah Wadsworth, the former head of Public Agenda, was fond of quoting Daniel Yankelovich as saying, "There is an additional level of effort workers can give you if they want to. The challenge is to elicit that 'discretionary effort.'" Maximizing student and teacher motivation could pay off not only in higher achievement, but also by improving the economics of K-12. A professional model might elicit the effort from teachers that the bureaucratic, boss-worker model of school cannot. And whatever we get from students, in the form of increased effort and engagement, comes for free.

> *"If achievement is imperative, then effort is essential; and if effort is essential, then motivation must be central. Conventional school is designed almost to suppress motivation."*

4. Radical changes in school and schooling can come into K-12 if we are practical about the process of change.

In most sectors, change begins as a new model appears. "Early adopters" pick it up quickly. Most do not, since the early models often are not very good. (Early cellphones, for instance, resembled a brick.) Rapidly, quality improves and, for a while, the old and new run along together, with people gradually shifting. Over time, tractors replace horses; airlines replace passenger trains; computers replace typewriters.

It has not been like this in education. Suggest changing school and you'll hear "Not everyone agrees with that" and "That would not work everywhere." The assumption that change is to be imposed universally and politically, and so requires consensus, is pervasive—and powerful. That is why little changes, and what does change does not change quickly.

Bryan Toy

We could take the nonpolitical route to change; we could let different forms of school and schooling be adopted by those who want them, assuring others who prefer traditional school that the "different" will not be imposed on them, and having them in turn agree not to suppress the innovative. Over time, schooling, and the institution of school, would change faster and with less controversy. Though some might dislike having differing models in use, diversity is appropriate as well as practical: Young people do differ in their interests, motivations, aptitudes, and backgrounds.

5. New schooling will require rethinking the concept of "being educated," and of what needs to be learned and how to assess it.

The traditional concept of education as the mastery of subject-matter content is deeply rooted. But a changing world requires some adjustment of our notions about "what students should know and be able to do." Clearly, children should learn how to read well. There should be standards. Performance will require assessment. But for the 21st century, we might also need skills such as those measured by the Program for International Student Assessment, or PISA: the ability to think critically and creatively, to communicate well, to work collaboratively in teams, and to know how to learn.

Twenty years ago, the public-utility framework of K-12 schooling offered no real opportunity for innovation. Today it does: The unbundling of public education in most states makes it possible to create wholly new schools. States should enlarge and improve this opportunity. Schools can be created by districts, as well as in the open marketplace of ideas. Boston, Chicago, Baltimore, Los Angeles, and other cities are moving ahead with new-schools programs. These schools are the place for innovation to occur. Foundations and the federal government should help with financing. Above all, they should help by affirming that "different" is legitimate.

Innovation, and the strategy of change through gradual replacement, will make K-12 education at last a self-improving institution. Lacking internal change dynamics, education has depended on others, outside, to push improvement into districts and schools. Over the long term, that way of doing things cannot be sustained. The country has too much to accomplish. Public education must be enabled to change and improve on its own initiative, in its own interest, and from its own resources. ■

Young Minds, Fast Times

How tech-obsessed iKids would improve our schools.

Written By Marc Prensky
Illustration By David Julian

TAKEAWAY

SYNOPSIS

Students have little input into the structure and substance of their own education. The traditional classroom lecture creates massive boredom, especially when compared to the vibrancy of their media-saturated, tech-driven world. But if we were to ask them, we'd learn they prefer questions rather than answers, sharing their opinions, group projects, working with real-world issues, and teachers who speak with them as equals rather than as inferiors.

TO DO

- **Talk to your students.** They're filled with great ideas on how to integrate tech into the classroom.
- **Lead by listening.** Skip the classroom lecture and initiate discussions instead.
- **Ask students:** What experiences in school really engaged you? How do you use technology in school as opposed to outside of school? What are your pet peeves?

I give presentations to educators at every level, all around the world. All of the teachers are earnestly trying to adapt their educational system to the twenty-first century. During my talks, however, I typically look out at oceans of white hair. Never—I can't even say rarely—is a kid in sight or invited to the party.

It is a measure of the malaise of our educational system that these old folk—smart and experienced as they may be—think they can, by themselves and without the input of the people they're trying to teach, design the future of education.

One of the strangest things in this age of young people's empowerment is how little input our students have into their own education and its future. Kids who out of school control large sums of money and have huge choices on how they spend it have almost no choices at all about how they are educated—they are, for the most part, just herded into classrooms and told what to do and when to do it. Unlike in the corporate world, where businesses spend tens of millions researching what their consumers really want, when it comes to how we structure and organize our kids' education, we generally don't make the slightest attempt to listen to, or even care, what students think about how they are taught.

This is unacceptable and untenable. It's also dangerous. We treat our students the way we treated women before suffrage—their opinions have no weight. But just as we now insist that women have an equal voice in politics, work, and other domains, we will, I predict, begin accepting and insisting that students have an equal voice in their own education. Or else our students will drop out (as they are doing), shoot at us (ditto), sue us, riot, or worse.

So, whenever and wherever I speak, I do my best to bring my own students to the meetings. I ask my hosts to select a panel of a half-dozen or so kids of different grade levels, genders, and abilities to talk with me and the audience. I ask only that the students be articulate and willing to speak their minds in front of an audience of educators. Some groups embrace the idea enthusiastically; others are wary. A few tell me they "just can't find" kids—and this, from teachers—or cite some rule that prevents kids from being there. Nonetheless, I persist, both hoping for an effective panel and believing that the group will provide a model for integrating student input about their education into schooling and planning.

What do I find? Almost all the groups are pleased and surprised by the result. In fact, the student panels are generally the highlight of my appearances. This comment after a discussion in front of the Virginia Department of Education is typical: "It was the best thing we've ever done."

By design, I typically don't meet the students until just before I speak, and my only instructions are to "tell the truth as much as you feel comfortable." I never know what the kids are going to say. One colleague told me "That's really brave." I don't see it that way. I see the panels as an opportunity to hear what the students think—whatever that may be. Listening to our students is always interesting and worthwhile, whether the kids are speaking their own minds (almost always the case) or whether they are channeling careful coaching they have received in advance from their teachers and parents (which happens occasionally, and is always quite obvious).

My approach, when conducting these panels, is to first ask the students a few setup questions:

- ***What experiences in school really engaged you?***
- ***How do you use technology in school as opposed to outside of school?***
- ***What are your pet peeves?***

The kids are allowed to pass if they don't want to answer, which takes some of the pressure off, and the audience is invited to join in later.

Every one of these panels is unique, but certain common threads emerge: The students typically express a variety of feelings—gratitude for the good teachers they have, and frustration with the greater number they find not so good. They are full of ideas but often skeptical that things are going to change much.

If you don't talk to us, you have no idea what we're thinking."

So why am I, at the ripe old age of sixty-two, the person ves students a voice? Perhaps it's because the students with what I have to say (they typically hear my talk be- ore the panel). Perhaps it's because I communicate somehow o the kids that I truly respect their opinions. It turns out that ot everyone can moderate these panels successfully, especially t first. It takes a willingness to accept whatever is said—good r bad, agree or disagree. But it is important for educators to ry, because they so rarely converse with their kids about how hey want to learn.

When I first started doing these panels, I regretfully took no otes. But over the past year I have tried to write down as many f the comments as possible.

I have heard some enormously insightful comments from he students, particularly about the differences between stu- ents and their teachers. "There is so much difference between ow students think and how teachers think," offered a female tudent in Florida. A young man commented, "You think of echnology as a tool. We think of it as a foundation—it's at the asis of everything we do."

"A lot of teachers make a PowerPoint and they think they're o awesome," said a girl in Florida. "But it's just like writing on he blackboard." A student in Albany, New York, pleaded the case or using technology in the classroom: "If it's the way we want to earn, and the way we can learn, you should let us do it."

One teacher queried, "Do computers cut you off from the world?" Not at all, said an excited student: "We share with oth- rs and get help. Technology helps—it strengthens interactions o we can always stay in touch and play with other people. I've one a day without talking to my friends online."

ie California high school served up a dose of common ense: "Kids grew up around computers. They love them. Their omputers are their second teachers at home." A student in West Virginia offered this nugget: "If I were using simulation n school, that would be the sweetest thing ever!"

Blah, Blah, Blah

OK, so kids love computers. They all agree on that. There's an- other thing they agree on: No matter where I go in the world—he United States, Canada, Europe, Asia, Australia, or New Zea- and—students are mind-numbingly bored in class. Listen up:

"I'm bored 99 percent of the time." (California)

"School is really, really boring." (Virginia)

"We are so bored." *(Texas)*

"Engage us more." (Texas)

"[My teachers] bore me so much I don't pay atten- tion." (Detroit)

"Pointless. I'm engaged in two out of my seven classes." *(Florida)*

"Th- disconnect between what students want and what they're ng is significant," said Julie Evans, CEO of Project Tomor- , which tracks youth culture. "Student frustration is rising."

I've heard some teachers claim that this is nothing new. Kids have always been bored in school. But I think now it's differ- ent. Some of the boredom, of course, comes from the contrast with the more engaging learning opportunities kids have out- side of school. Others blame it on today's "continuous partial attention" (CPA), a term coined by Linda Stone, who researches trends and their consumer implications. Stone describes CPA as the need "to be a live node on the network," continually text messaging, checking the cell phone, and jumping on email. "It is an always-on, anywhere, anytime, anyplace behavior that in- volves an artificial sense of constant crisis," she writes. "We pay continuous partial attention in an effort not to miss anything."

CPA differs from multitasking, which is motivated by a desire to be more efficient and typically involves tasks that de- mand little cognitive processing. We file and copy while we're talking on the phone and checking email, for instance.

Is this really new? I don't think so. In fact, I think it has always been the case. Excluding emergencies, or other experi- ences in which one's adrenaline is flowing, humans typically always have multiple things on their minds. Still others attribute the boredom to attention deficit hyperactivity disorder, but the T-shirt I recently saw a kid wearing in Rockefeller Center belies this theory: "It's Not Attention Deficit—I'm Just Not Listening!"

It's none of the above. If you believe the opinions of kids around the world (and you ignore them at your peril), the source of the problem is abundantly clear, and it's this:

"I'm bored all day because the teachers just talk and talk and talk." (fifth grader)

"[I wish] teachers would not talk at us, but with us." *(West Virginia)*

Talk, talk, talk, and talk, plus worksheets." (West Virginia)

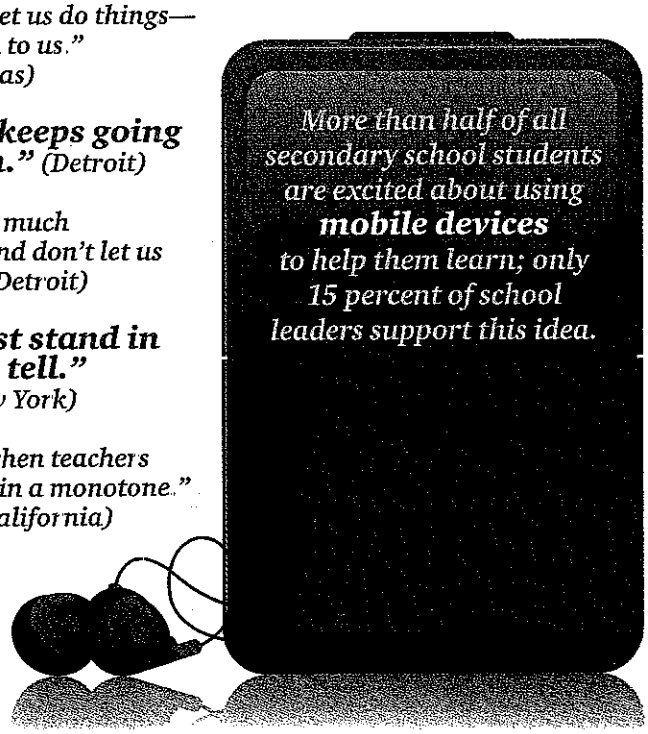
"They don't let us do things—they just talk to us." (Lovejoy, Texas)

"She just keeps going on and on." *(Detroit)*

"They do too much explaining and don't let us do things." (Detroit)

"Don't just stand in front and tell." *(Albany, New York)*

"[I hate it] when teachers . . . just read in a monotone." (Anaheim, California)



Today's kids hate being talked at. They hate when teaching is simply telling. They hate lectures and tune them out.

I've heard teachers argue that some subjects and topics need to have lectures, but, in truth, this is only a justification for the failure of those teachers to change how they teach. It is absolutely not true; there are other ways, in any discipline, to get students to learn exactly the same material without lectures—as well as without worksheets, something else the kids tell us they really hate.

Tech Talk

What are your best tips for blending tech into your lessons? Add them at *edutopia.org/tech-tips*

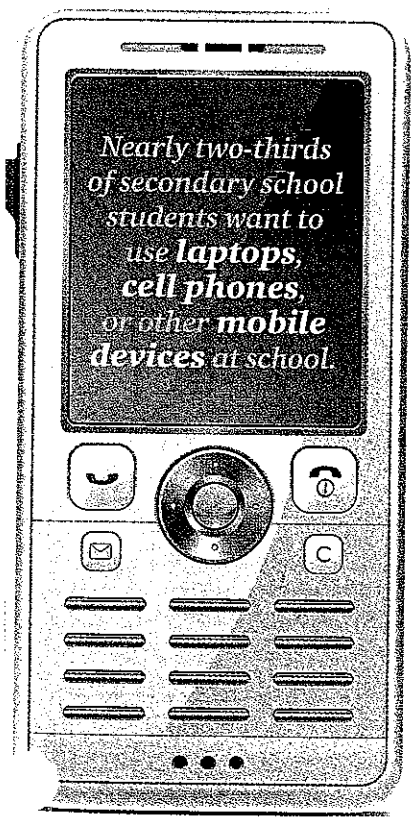
There are better ways to help them learn, and students expect us, as the adults in the room, to know how to use them. They say, for example "If you made it more interesting we would respond better." And, "If you give us a goal to get to, we'll get there."

Students universally tell us they prefer questions rather than answers, sharing their opinions, group projects, working with real-world issues and people, and teachers who talk to them as equals rather than as inferiors. Hopefully, this is useful information for teachers and other educators—and it is important that educators realize just how universal these opinions are.

"My Brain Is Exploding . . ."

For me, though, the best part of the student panels is always hearing the kids' answers to my final question. I ask about their experience that day and whether their soapbox proved useful. "How do you like being able to talk to your teachers and supervisors about your learning?" I ask. I truly love their answers:

"I like the fact that we become equals. Students do not get the opportunity that often to share their ideas. If students and teachers could collaborate, a lot more would get done." *(Anaheim, California)*



"A lot of students care—you just don't realize it." *(Poway, California)*

"Most of the time, the teachers are talking and I want to go to sleep. But now my brain is exploding." *(Poway, California)*

"Don't let this be a onetime thing." *(Poway, California)*

"I think it's important that you take time to see what we feel." *(West Virginia)*

"Now you know what we think and how we feel. Hopefully, that will go to the heart." *(Texas)*

"I waited twelve years for this." *(Texas)*

"I wouldn't have believed it if I hadn't seen it!" *(Texas)*

"As a general rule, you don't hear from kids unless they've gotten into trouble." *(Anaheim, California)*

"Both groups [teachers and students] can learn from each other." *(Anaheim, California)*

"If you don't talk to us, you have no idea what we're thinking." *(Hawaii)*

Clearly, the kids find it valuable to share with their educators their opinions on how they want to learn. Although skeptical, they hope those teachers and administrators who are trying to improve their education think so, too, and listen carefully to what the students have to say. Again, quoting the kids:

"It would be good if teachers have this conversation with us on the first day. But often, they don't change anything." *(Texas)*

"I hope this didn't just go in one ear and out the other." *(Texas)*

Have there been any quantifiable results in terms of real changes to the students' daily lives? It's hard (and probably early) to tell, although I do know for certain that the panels have had an influence on the administrators in the audiences. Many superintendents have invited me back to do the talks and panels again for their principals and teachers. Australian administrators distributed a three-CD set of the kids' discussions to every teacher they supervise. My great hope is that, once modeled, these types of conversations will be repeated frequently in our schools, in the United States, and around the world.

Bottom-Up Input

After hosting dozens of these conversations, I realize one thing: We just don't listen enough to our students. The tradition in education has been not to ask the students what they think or want, but rather for adult educators to design the system and curriculum by themselves, using their "superior" knowledge and experience.

But this approach no longer works. Not that the inmates should run the asylum, but as twenty-first-century leaders in business, politics, and even the military are finding out, for any system to work successfully in these times, we must combine top-down directives with bottom-up input. As the students have told me on more than one occasion, "We hope educators take our opinions into account and actually do something!" Until we do, their education will not be the best we can offer.

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Building a 21st Century U.S. Education System

By Bob Wehling

I've often wondered what would happen if, all in the same day, our country had a major earthquake, a tsunami, one or two hurricanes, a couple of tornadoes and a plane crash with a total of 100,000 or more kids killed, seriously injured, or rendered homeless. Without a doubt, there would be a national call to action with thousands of volunteers and unprecedented charitable donations to support the cause. Considering this scenario, I'm left asking myself why we don't get a fraction of that response to the situation of ten times that number of kids who fall through the cracks of our education system and are doomed to lives of minimum wage jobs, welfare, and/or prison every single year. How is it that we are compelled to action by unforeseen tragic events while simultaneously immune to the everyday occurrences which continue to produce lives without opportunity or hope?

Acknowledging Reality

Over 48 million students are currently being served by American school boards, administrators and teachers throughout our country's 16,000 school districts. In over 90,000 American public elementary and secondary schools, educators are working hard to do what's best for all children.[1] However, despite significant progress in public education in the United States, we remain far behind where we need to be. And the pace of progress is extremely uneven across the country. I believe we've proven that simply admonishing schools to do better and writing legislation that demands more accountability is not the answer. While it has certainly helped to have more data and accountability, we still have millions of kids not achieving to the level that they need to be.

The fact is that every system is perfectly designed to get the results it gets. 16,000 districts each doing their own thing; thousands of school levies failing in some districts and passing in others; uneven standards across our 50 states for both teachers and students; appalling levels of teacher turnover; insufficient attention to school readiness and other similar issues... until we adequately address these intertwining factors, we are doomed to continue generating over 1,000,000 dropouts per year and an equal number of high school graduates who are insufficiently prepared to succeed in higher education or in the adult workforce.

I've had the pleasure of working with thousands of school board members, superintendents, principals, and teachers over the last forty years. The vast majority of these people are truly dedicated and working as hard as possible to help students succeed. The fact that these people are not collectively producing better results is, in my opinion, not their fault. They are doing everything they can as members of a dysfunctional and ill-equipped system. The unfortunate reality is that our current educational system does not effectively educate all children – especially children who are physically, mentally, emotionally, or socially unable or unwilling to learn. For many children, it is difficult to care when there is no light at the end of the tunnel to motivate them to learn or encourage them to keep trying to catch up once they've already fallen behind. What must we do to create a system that motivates all children to hunger to learn and then to give them all outstanding educational opportunities?

Asking the Right Questions

Simply stated, we need fundamental changes to our educational system to create the level of results which will enable all students to compete with their peers, nationally and internationally, as workers and as productive, educated citizens. To get at some of the systemic changes I believe are imperative, let me start with these questions:

- Why should a fourth grade teacher in Seattle have different training, standards and licensing requirements than a fourth grade teacher in Dallas or New York?
- Why should a family that must relocate from Maine to Louisiana find their children subjected to materially different standards, expectations, curricula options and assessments? After all, we are the most mobile society in the history of the world.
- Why should we accept the fact that most high school graduates in our urban cities and rural areas have been exposed to fewer educational options and opportunities than our students in affluent suburbs?
- Why should school administrators have to spend their time on tax levies and bond issues, rather than on instructional leadership and education excellence?[2] Why should teachers and students see vital programs cut because their community is poor or fails to support public education? Isn't there a more efficient and dependable funding system which adequately provides for excellent education opportunities for all students regardless of where they live?
- Why are we satisfied with a system that currently provides a 1-in-14 chance of the typical child having a "consistently rich, supportive elementary school experience"[2] when we know that early educational experiences are an important predictor of later success?
- Why are we willing to accept that the cumulative effect of over a million dropouts each year translates into a population where over 10 percent of all American kids ages 16-24 are high school dropouts,[3] especially when we consider that dropouts are 3 5 times more likely than high school graduates to be arrested at least once in their lifetimes?[4] I'd really like someone to tell me why we aren't morally outraged by this situation!
- Why do most Americans seem to believe that our good jobs are going overseas simply so that corporations can save money? Why don't they understand that many of these jobs are leaving to go where there is a well-educated workforce, with a very strong work ethic and a commitment to further learning? Why don't people seem to understand that this situation is very likely to get worse rather than better and will continue to deprive our children and grandchildren of well paid, career ladder jobs with adequate wages and benefits?

Using Our Resources

As in business, to hope for better results without changing the system is simply wishful thinking I believe a U.S. public education system would produce materially better results by standardizing those elements necessary to ensure that every child has a high quality teacher and an equal opportunity for a great education. These universal elements would

include standards at each grade level and for graduation, curricula frameworks in key subject areas, one national assessment system, and technology to meet the needs of all students. Each of these elements would be the same regardless of geography and regardless of the wealth and education level of a child's parents and community. The new system would be completely aligned and therefore be easily understood by teachers, parents, students, and the general public.

While it is time to stop tinkering with elements of the system and change the system itself, I'm not calling for us to reinvent the wheel. Virtually all key elements of an improved system already exist. They are just waiting to be properly assembled. In every state, we have model programs and pilots. We have committed groups of teachers and administrators who know what to do. We simply need to take the best of all these models and join the elements into one cohesive and sustainable system for all children. The National Board for Professional Teaching Standards (NBPTS) has clearly defined "accomplished teaching" in 27 fields across the K-12 system. These standards can and should be incorporated into the curriculum of every college of education. All certification and licensing programs should be modeled on these standards, recognizing that it will take new teachers at least five years of practical classroom experience to fully reach the standards. Moving toward a more uniform system of teacher education and training which incorporates rigorous high standards will produce a core of teachers who have the same degree of training one would expect of doctors, lawyers, pilots, engineers or practitioners of other professions. Clearly this is not the case today, despite substantial progress led by NBPTS, National Commission on Teaching and America's Future (NCTAF), National Council for Accreditation of Teacher Education (NCATE), and many others.

Similarly, we now know what world class standards should look like in virtually every subject area. Consider the work of Achieve, Inc. – a national organization composed of governors and business leaders and staffed by educational policy experts. This organization is able to review the standards of any state and compare them with others in each subject area. Right now, the decision to use this resource is completely voluntary, and states can choose whether or not to have their standards reviewed. Currently, less than half of the states are participants in Achieve's American Diploma Project (ADP)[5] network, a project also sponsored by the Education Trust. We should insist that every state employ the services provided by organizations like Achieve, Inc. with the aim that all 50 states operate at the same high quality standard in all key subject areas.

Overall, we have abundant examples of proven principles and practices which can be seen across various parts of the U.S. Consider, for example, the work of the KIPP Academies, the Baldridge based schools, and numerous K-12 schools with close partnerships with one or more colleges or universities. Likewise, consider the impact of National Board Certification which has recognized and certified over 50,000 highly-qualified educators across the country, as well as organizations like the Sylvan Learning Centers that diagnose and support the needs of struggling students.

The truth of the matter is that we have numerous resources available to us. We know what we need to do; we just need to do it. We know how students learn and what schools must

do to support them from decades of research and practice. We know that when teachers and students truly understand the standards and expectations, and use data to track growth and performance that improvements almost always occur. We know that there is work to be done. The Pygmalion principle is alive and well. Children will generally live up to our expectations. But, our expectations are inconsistent state to state and community to community. In order to move forward, we must have the same high standards in place for all students. It is possible, as evidenced by numerous international examples.

Learning from Our International Peers

In order to provide accountability for high standards of teaching and learning, many countries around the world maintain a basic curricula framework which is tied directly to clear, high standards as well as a national assessment system. By measuring educational achievement in this way, all students and parents are subject to the same high expectations – and opportunities - whether they are in a country village, an urban center or a suburban area. Individual schools can and do supplement the national curricula with special offerings to meet the diverse needs of students in different regions.

There are many lessons to learn from our international peers if we are to create a truly world-class, globally-competitive education for all American students. In general, kids in other countries spend more time on education than we do here in the United States. Part of this is a belief in true "time on task" by both educators and parents. Further, Americans tend to think educational success is based on a combination of student intelligence and teacher quality. While both are undoubtedly a part of the equation, there is a fundamental belief in other countries that educational success is based on how hard you work, and there is general consensus that more effort means better results. Community and parental expectations are generally higher, and there is a greater stigma attached to lack of effort and performance at school. Similarly, I've seen a greater degree of school pride in the Asian and northern European schools that I've visited than I've seen here. Overseas, for example, it is most common to see students dressed in blazers that proudly identify their school name or logo and very uncommon to see litter, graffiti, or disorder on the school campuses. Overall, there seems to be a greater respect for the public school systems in the countries I've visited. While I acknowledge that there are no perfect school systems in other countries and that even widely celebrated examples in Asian countries also have their shortcomings, I believe there is a lot that can be learned from the value that the general public places on education in these countries. If nothing else, we must do something to move in this direction. What must we do to challenge current attitudes about public education in this country?

While challenging the general public's opinions will undoubtedly take time and effort, there are other lessons from overseas that can be more easily implemented. There is a clear difference, for example, between textbooks and curricula frameworks in the U.S. versus other countries. In general, this can be described as breadth (U.S.) versus depth (international). While American textbooks are frequently longer and contain more chapters, many international textbooks focus more intently on fewer topics. In America, we also tend to emphasize facts and dates over broader concepts and stimulating questions, unlike other countries. Our American approaches to curriculum also make teachers' jobs more difficult

with much less time for planning, observing, and collaborating with other educators than our international peers. Generally speaking, teachers in other countries are not isolated to the same degree that we often see in this country. Teacher collaboration in other countries also supports their more consistent and standardized national systems. Further, because there is a national assessment system in many of these countries, everyone in every city and village knows what to expect and how to prepare. Here in America, we already have a national test in place that could fill this need. Currently, the National Assessment of Educational Progress (NAEP) test is used to provide subject-matter achievement results for groups and populations of students, but it could easily be expanded to provide scores for individual students, schools, or districts. A national system of public education, like the ones in place in widely-celebrated systems overseas, provides the most potential for sustainable, systemic change to American public education.

While I believe a truly national system is the answer, I want to be totally clear that I am not advocating a government system which is heavily influenced by political considerations. Rather, I envision a system in which our best educators are commissioned to develop and enact national standards (not voluntary); a national curricula framework for at least the most important core subjects; a national assessment system which is fully aligned with the standards and curricula; modern technology to help meet the differing needs and interests of students; a compensation system which rewards excellence and which will help attract our best students into teaching; a national framework for teacher training, licensure certification, and professional development; and a funding system which ensures that all of this is accessible to all students. What is holding us back from creating a new system which works for all teachers and students?

Challenging Old Ideas

Perhaps we are held back by our connection to old ideas that no longer serve the diverse needs of America's students. Although it won't be easy, we must be willing to shed these outdated beliefs to make way for innovative new approaches. Some of the resistance comes from the fact that many of my suggestions fly in the face of our historic belief in local control. However, while I once fought for local control as a school board member and president, I'm now convinced it is the foundation of an uneven system which does not offer all children a world-class education opportunity. Only by moving from local control to local support can we begin to make widespread progress toward educational equity. So what's the role for states and local districts in the system I envision? At the state level, I think the principal role will be supporting local districts, sharing new learning and best practices, and serving as an efficient communication link between the national leaders/experts and the local districts. The local district's role will be providing support for teachers, implementing ways to make courses most relevant to the needs of local students, overseeing close supportive relationships between local universities and K-12 schools, fielding athletic and extra curricular activities, and finally, finding ways for the unique needs of individual students to be met by innovative solutions such as distance learning, tutoring, and/or other learning opportunities inside and outside of the school

Similarly, we must re-frame the way we think about our American system of public education. We need to stop compartmentalizing our schools by grade level and geography and start thinking in terms of a Pre-K through graduate school system that is as seamless as possible. All teachers, at all levels, should feel a responsibility for all students and a responsibility to support one another. We must also become less reactive and more proactive when it comes to student achievement by shifting the focus to diagnostic testing that will benefit both the teacher and the student. Overall, we must once again make education our top priority! Today, in our Post-9/11 world, education often follows war, terrorism, energy prices, immigration, health care, and other economic and political issues on the list of America's concerns. While there are numerous obstacles to overcome, we must not let this prevent us from facing the challenge

Facing Funding

While we certainly face ideological struggles related to school system redesign, we face financial barriers as well. Perhaps one of the greatest obstacles blocking the road to sustainable educational improvement is school funding. This road is littered with failed approaches that continue to benefit some students over others. We must design and implement a materially-different funding system for public education if we are to provide all of our children with reasonably equal basic educational opportunities. Today, the well-being of a school and the options available for students depend on the financial prosperity of the community, the education status of its population, and the percent of homes with children or relatives in the school system. Clearly, this system has inherent flaws that contribute greatly to the ongoing problem of educational inequality. The most egregious problem with the current system is that the children in the system are powerless and totally at the mercy of school levies whose success or failure is based largely on the votes of only 20 percent of the population who have children or grandchildren in the schools

I believe it is unarguable that the way we fund schools is a significant part of the problem. Depending on roughly 20% of the voters in each of 16,000+ school districts to tax themselves to provide quality education for all students is a root cause of the unevenness we see all over the country. The fact that most levies and bond issues fail simply widens the gap between students lucky enough to live in affluent, well educated communities and those who live in poorer areas with lower education and more people on fixed or non-existent income who cannot support any taxation.

This situation which goes on every day all over the U.S., and which I am convinced most people understand and many accept or ignore, causes a number of closely related problems. It forces school boards to cut all but required courses and often to curtail professional development as well as technology upgrades and basic maintenance. It forces many superintendents and principals to focus on budgets and on the next levy rather than providing educational leadership and teacher support. Districts are forced to curtail school buses, extracurricular activities, and other "luxuries" such as mentoring and tutoring for students who fall behind. We continue this unfair and inadequate system of funding in the name of "local control." This may have been okay 50 or 60 years ago when students who did not have great education opportunities and who did not achieve academic success could still find meaningful employment with salary and benefits sufficient to support a family. But those days are long gone.

I believe we will be unable to compete effectively in the 21st century until we change "local control" to "local support" and create a combination of federal and state funding which will give each student genuine access to the very best education we know how to provide In my view, this means restoring education as our clear number one national priority and raising education as a percent of the federal budget from 6-7% today to 20%+ The same priority and funding emphasis should occur at the state level Local districts should get out of the school tax business and focus instead on mentoring, tutoring, coaching, helping in the schools and supporting principals, teachers, and individual students

While I believe a bipartisan national commission should be created to study and propose a new, more equitable and dependable system, I'd like to share the following funding possibility. One option which should be explored is to take all the monies currently being invested in public education by the federal government, by each state and by local counties and communities and convert that into a national education fund That fund, administered by a bipartisan or apolitical group, would be dispersed evenly across the country on a per student basis Future increases would come from a consumption-based national education tax sufficient to provide every child with quality education options and technology and to provide each teacher a level of income commensurate with training and student results. At the time the consumption-based tax is implemented, all current state and local property and income taxes supporting education would be eliminated, though each community would continue to be able to tax itself further for supplemental programs and activities.

Currently, we spend about $540 billion each year on public education [6] If this total investment were to be increased by just 20 percent, we would have an additional $100 billion to serve America's school children While there are numerous possibilities for the allocation of these funds, I envision an increase in each of the approximately 3 million American teacher's annual salary by about $20,000 each year. This would cost an additional $60 billion a year, but would undoubtedly help to attract the best and brightest to the field of education. I propose that the other $40 billion should be used to equip every school with distance learning capabilities and provide for at least two weeks of annual teacher training each year. These additional funds could come from a variety of sources, such as the national sales tax of approximately 10 percent proposed above, or additions to federal, state, or local education budgets. According to 2005 research by the National Center for Education Statistics, on average the federal government currently supplies only 8 5 percent of the funds to operate American public schools.

From my perspective, if we truly want our children and grandchildren to be productive and contributing citizens in a growing economy with meaningful and rewarding jobs, we need to increase our spending on education by $100-150 billion per year as a country. Only an increase of this magnitude would enable us to: 1) make teaching a sufficiently well paid profession to attract our best and brightest students; 2) ensure that every child and every school has state of the art technology and software to meet the needs of all the students; 3) vastly improve the curricula and texts we use in order to have our students compete effectively with their peers around the world.

Our curricula needs to focus much more on concepts and to give students a depth of understanding in all key subjects rather than just an emphasis on raw facts, dates and numbers.

I believe the time is right to look at all aspects of our educational system versus those in other developed countries, including how we fund schools and reward teachers in order to provide the framework for a new system which will give all of our children and grandchildren the education they deserve and must have to compete in the 21st century These are just a few of the myriad of possibilities to consider Imagine how changes like these could equalize access to a high-quality, globally-competitive education for all students

Shifting Our Focus

While I acknowledge that many of these suggested changes to the current system will be highly controversial, I challenge naysayers to shift their focus toward calculating the societal cost of maintaining the status quo. We simply cannot continue to provide disparate educational opportunities and expect equally-successful outcomes We cannot continue to blame American job-loss on lower foreign wages, when it is also higher qualifications that attract U.S. companies to hire overseas To win back these jobs, and keep many others, we need a better system of education that gives Americans a globally-competitive advantage. If we fail to move in new directions, I am convinced we will be convening meetings each year for the foreseeable future to commiserate about the results and to keep tinkering with a broken system, meanwhile continuing to lose a million or more kids each year through the cracks.

Looking Ahead

American public education stands at a critical juncture, teetering over the edge of our increasingly "flat" world. The way I see it, we are in public education today where we were in American politics before women and minorities all had the right to vote and fully participate in our society. If we are to move forward as a nation, we must come together to address the realities of the out-dated systems that continue to hold us back Recognizing the unjust and uneven distribution of educational access and opportunity that exists in our public schools today is a bold, but necessary first step toward securing our society's place in the future. We must work together to build a 21st century U.S. education system which takes everything we know about quality education and applies it to every school. It's the only way to secure a future for each American child, and therefore the only way to secure a strong future for our country. As Mortimer Adler, a professor at the University of Chicago in the 1930's reminds us, "The best education for some is the best education for all."

Endnotes

1. For detailed information on American public elementary and secondary schools, see Hoffman, L., and Sable, J. (2006) *Public Elementary and Secondary Students, Staff, Schools, and School Districts. School Year 2003–04* (NCES 2006-307) U.S. Department of Education. Washington, DC: National Center for Education Statistics
2. Toppo, G. (2007, April 2, 2007). Study: Teachers failing in class. *USA Today*, p. A7
3. Kaufman, P., Alt, M.N., and Chapman, C.D. (2001). *Dropout Rates in the United States: 2000* (NCES 2002-114). U.S. Department of Education. Washington, DC: National Center for Education Statistics
4. *"The Impact of Education on: Crime,"* Fact Sheet, Alliance for Excellent Education, November 2003
5. For an up-to-date look at participation in the American Diploma Project sponsored by Achieve, Inc. and Education Trust visit their website at www.achieve.org.
6. This number is based upon 2003 data from the U.S. Department of Education and speaks to the total annual investment of federal, state, and local funds in American public education

CHAPTER 16

A Nation of Locksmiths: Transforming Our Education System to Guarantee All of America's Children a Quality Education

Mary Hatwood Futrell

"Some see a door locked and walk away.
Others see the door locked and look for a key
Still others see the door locked and make a key to open the door."
(Unknown)

When America decided more than 200 years ago to establish a public system of education, a critical part of that decision most likely focused on why we educate and how to educate citizens for a changing world They knew then what we know now, that the primary focus of education is to prepare American citizens for their roles in a continuously evolving democratic, capitalistic society.

We have come a long way since the Northwest Ordinance Act in 1787 (Cremin, 1982), which authorized the creation of schools to serve the public good. Today, thanks to generations of actions at all levels of government, every American has access to education through our public school system Indeed, our universal education system is one of the fundamental foundations of our democratic society and of our economic system and has played a major role in making it possible for all Americans to be part of our society.

But, does every American have access to a quality education, to an education that will prepare them for the global, knowledge-based society in which we are living today and which will continue to define who we are in the future? As a nation, we have struggled to fulfill our commitment to provide not only access to education, but access to equal educational opportunities for all children, regardless of gender, race, ethnicity, or socio-economic status. And, as a result, we have made considerable progress, as evidenced by America's leading role in our global society, especially within the world economy.

At the same time, we continue to face challenges, which I call "wicked problems," such as, how do we close the achievement gap that persists within our increasingly diverse student population? Can the educative process provide a core curriculum without ignoring or diminishing the need for additional curricula that are responsive to the different learning styles, needs, and interests of students? How can we change schools and simultaneously improve the quality of education they provide? How can and will technology be used to rethink the paradigm that has defined the organizational and philosophical foundations of our education system for more than a century? Some will see these and other similar challenges as negatives I view them as positives, as opportunities to work together to redesign our education system to educate more effectively the people of America

We live in a changing world, a world in which well-educated citizens will be in greater demand at every level of society. In order to answer the questions above, we need to first ask one question in particular: "Why do we educate?" And, by educate, I do not mean simply teaching the basics That is a critical component of the educative process, but for what purpose do we prepare our young people to be citizens, leaders, and workers? What do our citizens need to know to be viable players in this complex, multi-cultural, highly competitive global society? Thus, the question is not whether each one of us will be part of that debate, but rather, if we will be prepared to actively engage in it.

Yes, our students need to demonstrate better mastery of science, math, and technology, but that will not be sufficient. We need to expand not narrow our curriculum to ensure that all Americans have a better understanding of the world Unfortunately, as we all well know, reports indicate that, because of the No Child Left Behind Act, many school districts are doing just that—dramatically narrowing their curriculum to teach to the adequate yearly progress requirements outlined in that legislation. In order to achieve the goal of enhancing understanding and appreciation of our global society, the curriculum should be enriched, not depleted.

Let me be more specific. We need, for example, to start in primary school, certainly no later than middle school, to teach our children to speak another language and to understand the geography and culture of other nations We need to ensure that our children are equipped with the "tools" to be independent thinkers, as well as have the communicative, social, and work skills to be team players, whether here at home or abroad

To achieve these goals, teachers must be key players in the entire decision-making change process, from the beginning to the end Are educators—teachers, school counselors, administrators, and teacher educators—prepared and willing to assume the role of key players to help rethink the education paradigm, or are educators still being prepared for the industrial era that is long past? Is there support and political will to redesign and restructure the public education system? Are we willing to dismantle the top-down administrative structures and silos that currently define our education system?

The model of schools as cubicles—in which teachers teach their classes in isolation using the didactic method, or where subjects are taught as isolated disciplines—is no longer the most practical or effective way to teach and learn Further, in too many classrooms, students are isolated as "independent" learners Students today need to understand the interdisciplinary relationship between, for example, technology, English, history, and biology To accomplish this, courses might be taught by teams of teachers using strategies like block scheduling or mediated learning that would allow more time for students to develop strong social and academic foundations and to learn how to learn together through more interactive, team-based opportunities. In such environments, students would discover how to do research, synthesize their findings, and effectively communicate the answers. Thus, they would have more opportunities to become self-motivated and inquisitive, to understand how different subjects interact, to become more confident leaders in their learning environment, and to become life-long learners

Another segment of our education paradigm that needs to be addressed if we are to improve education is the leadership structure. Are school leaders prepared to share leadership responsibilities? Are teachers still regarded as very tall children? Are schools and school districts willing to empower teachers (one of their greatest resources) to be part of the team to identify challenges that need to be addressed, and to implement strategies to improve schools and, thus, the education of our children? In other words, are members of the teaching profession, policymakers, and the public willing and ready to take the necessary actions to redefine that structure to more effectively educate our children for the challenges of the knowledge-based globalized society in which we live? Is it within our reach to challenge our children to achieve today's promises and those of the future? Is that possible in the way our society, especially our schools, is structured?

This conversation could not be timelier. This year, nationwide K-12 enrollments reached a historic high of 55,000,000 students and are projected to reach 57 million by 2010. The same is true of higher education enrollment, which is expected to grow by three million students—from 15 to 18 million—by 2015, at the undergraduate level alone (Institute for Higher Education Policy, April 2006). Of those three million students, 80 percent most likely will come from racial and language minority groups. Will those students, in particular those from minority or poor backgrounds, be able to afford a postsecondary education at a two or four-year institution? Will they be prepared to master the curriculum? This challenge is reinforced by the fact that today, over 80 percent of the fastest-growing jobs require at least some postsecondary education. With these figures in mind, as the United States becomes increasingly diverse, can we afford not to educate all Americans and educate them better than any previous generation?

Whether we are preparing policymakers or policemen, corporate leaders or salesmen, astronauts or artists, counselors or chefs, educators or engineers, a quality education for all is the key to ensuring that the United States will continue to be a primary leader in our globalized world. We, therefore, need to transform our education system—prekindergarten through graduate school—in order to guarantee that every American has access to quality education and to ensure that they are prepared to be life-long learners. Our ability and determination to fulfill that transformation needs to become a national priority. The education citizens receive today should enhance their quality of life, help them adapt in a constantly changing society, and help define what type of society we want and will become.

Let me assure you that the issue of education is not simply an American debate—it is a global debate and a top priority around the world. As Thomas Friedman, author of the book, *The World is Flat* (2005), said, "The more I cover foreign affairs, the more I wish I had studied education in college, because the more I travel, the more I find that the most heated debates revolve around education." The strongest nations will be those that invest in education to build on the interrelationship between human potential and the political, economical, and social viability of their people. They will be those nations which examine their people and their society and determine what knowledge and skills are necessary for them to survive and grow, and contribute to a better quality of life.

At times like these, educators at all levels bear a particular responsibility to help others respond to the mosaic of changes and challenges impacting our society. To successfully

address any of these issues requires commitment and courage on the part of each of us. It is our professional responsibility to help redesign our system of education and to work together to ensure that it effectively fulfills its purpose of teaching the children of America so that they understand the value of education and are prepared to be educated throughout their lives

The challenges before us—institutional, professional, and personal—are not new. They did not recently bubble to the top of the pot. Whether it be a once in a lifetime catastrophe like Hurricane Katrina or the steady influx of immigrants into our society, we have been through these natural and cultural changes before. As tumultuous as they may be, they help reiterate the defining characteristics of America, past, present, and future. On the international level, globalization is a reflection of the continuous evolution of who we are as a people, as a society, as a world. Again, the challenges we face are not unique to any one particular part of our country or the world. Nevertheless, they impact each of us and all of us.

Yet, we should not need a disaster or demographic revolution to understand the need to transform our education system to continually expand access to and enhance the quality of schooling. Education is not stagnant. Education is vibrant; it is constantly evolving. On the one hand, it must be protected, but it also must be cultivated to meet the changing social, economic, and political needs of our society. And, that requires hard work from all of us.

As I have stated throughout this paper, how well we sustain the viability of our nation will be a reflection of how well we understand the role of education in positioning the United States to be a key player in our modern global village. For almost three decades, we have had national conversations about reforming our education system. While those conversations have been ongoing, and heated, they have been fragmented and have not brought about the necessary transformative results.

At the same time, we recognize that much of what we have accomplished as a nation has occurred because education is, and continues to be, a major foundation of our democracy and, in particular, our economy. Educating people has enabled us to address successfully the myriad challenges that changed us from an agrarian to an industrial, and now, to a knowledge-based society. And, as we accept and adjust to this transformation, key players need to work together to not simply rebuild the same system or correct deficiencies. We need to work together to truly transform our schools to educate more effectively all of the nation's citizens, particularly our children, for they are the future of America.

We need to acknowledge the fact that whether we like it or not, our students are not achieving as well academically as they should and that there are glaring academic disparities among students in schools all across this country. Unfortunately, for example, the fragmentation that defines too many curricula in our schools is not assuring all students that educational foundation or equality of educational opportunity. At the same time, we need to acknowledge that changes throughout our society—economic, social, and political—are placing greater demands on our schools and the teaching profession.

So, what would I do to improve the quality of education in America? First and foremost, I would encourage America to reaffirm its commitment to ensuring that every citizen has the knowledge, skills, and experiences to improve their quality of life, fulfill their responsibilities as citizens, and enhance our national development To respond to this pledge, we should start, I believe, by addressing five key areas:

1. Focus more on student learning

Provide every child access to free, quality preschool starting at age three. Programs should be designed to help prepare children developmentally and socially for formal schooling.

Fulfill the pledge that every child will attend a school that is well-equipped, safe, and staffed with highly qualified teachers. Each child should be taught a well-defined, rigorous curriculum with the focus on student learning.

Encourage students to assume more responsibility for their learning. Support students' efforts to be more avid learners.

Support students needing extra assistance through tutoring and mentoring programs.

Increase parental involvement Programs especially designed for parents who need help with their child's schooling should be provided

2. Strengthen and enrich the curriculum

Implement a core curriculum, especially through 8th grade. Ensure that the educational foundation of all students, whether they end up pursuing an academic, general, or vocational track, will be predicated upon a solid academic core. Students as a result will be equipped with a greater capability to successfully function in our knowledge-based, multicultural, multilingual global society Core subjects should include mathematics, science, English/language arts, history, the arts, and technology, and should be heavily supplemented by world geography, world history, and foreign languages

Ensure that all course content is rigorous, coherent, and clearly sequenced from one grade level to the next.

Align curricula and assessment standards Ensure that educators (especially teachers and school administrators), students, and parents are fully aware of and understand what the standards are, how they will be applied, and the consequences of failing to meet them Schools and school districts need to align curricula, content, and instructional and assessment standards so that all children are assured the educational foundation they need to demonstrate not only mastery of the subjects they are taught, but how to use what they have learned to further educate themselves Require that teachers and administrators know how to disaggregate the data in order to improve the curriculum, teaching and learning

3. **Honor and fulfill the promise that every child will be taught by a "highly qualified teacher."**

Recruit and place only highly qualified, certified, professionally-prepared teachers in classrooms Stop by-passing the certification process and placing non-certified teachers in our schools. Require every teacher to be professionally prepared to teach and able to demonstrate successfully mastery of content, as well as a repertoire of pedagogical skills and dispositional values

Require all new teachers to complete a two-year induction program before they are issued certification.

Place more National Board certified teachers and other exemplary teachers in low performing schools This recommendation is particularly critical in light of the fact that research shows that poor and minority students are far more likely to be assigned teachers who have not been professionally prepared to teach, are teaching out of their content area, and/or have not demonstrated that they are exemplary teachers.

Recruit high-performing administrators to provide instructional leadership and who understand how to help teachers address their instructional needs. These administrators should also require preparedness and efficacy of the teachers in their schools. Equally as important, administrators must share the responsibility for the improvement of teaching and learning in the school. In other words, administrators must be managers and disciplinarians, but they must also be instructional as well as distributive leaders who share leadership responsibilities with their faculty

Increase professional development opportunities for all teachers and administrators, with a special focus on concerns that they have identified within their schools that are impeding efforts to improve student learning. Teachers should be involved in identifying areas that need to be addressed, but also involved in defining and sustaining professional development programs to address those needs. Such programs should be resourced to be ongoing and should be designed to help educators address problems within their schools and master new curricula and instructional strategies.

4. **Transform schools, colleges, and departments of education (SCDEs) to better prepare teachers and educational leaders for 21st century schools.**

Align the work of SCDEs more closely with state and national standards to ensure that pre- and in-service preparation programs reflect the demands of our society and the changing dynamics in our schools.

SCDEs and local school districts should form learning communities designed collaboratively to enhance the continuous professional growth of all educators—P-20—and to ensure that their faculty are well-versed and well-prepared to help transform schooling and, thus, education.

Ensure that SCDEs are themselves transformative and have the capacity to prepare K-12 educators to help redefine and teach in 21st century schools, using distance and mediated learning technologies and other innovative new methods of educating students for the information society in which they live

SCDEs should work closely with their counterparts in other professional schools, such as arts and sciences, law, business, medicine, and engineering in order to form professional learning communities that enhance the relevance of teaching and learning.

Urge colleges and universities to stop treating SCDEs like cash cows. Higher education institutions should invest in the educational quality of future students and the rest of America by investing in the quantity and quality of the preparation of future educators at all levels of the system. In other words, enhance the capacity of school districts to effectively staff their schools with well-prepared, well-trained professional educators by supporting the efforts of SCDEs to transform teacher education, counselor education, and educational leadership programs to more effectively prepare educational professionals

5. **Maximize the capacity of schools to enable students to improve their education by providing an environment that supports and encourages high academic and behavioral standards and is collegial and innovative. To effectively implement the four foregoing recommendations, schools must have the physical and fiscal capacity to improve. Schools should:**

Implement smaller class sizes, especially at the elementary school level. Kindergarten-grade 3rd classes should have no more than 12 students, and grade 4th-6th classes should have no more than 15 students. At the secondary level, efforts should be made to ensure that class size will not exceed 20 students, especially in the core subjects. By keeping class size at these optimal levels, teachers will have more opportunities and time to address the learning needs of each student

Establish a longer school year and/or extend the school day to increase instructional time. Educational demands have been steadily increasing without a simultaneous increase in instructional capacity. Refusal to address this issue is a strategy for failure. If instructional time is not increased, in-depth teaching and learning will not occur

Guarantee that all schools are equipped to use technology to reinforce and advance educators' and students' ability to communicate effectively, engage in problem solving, better understand the subject area, analyze and interpret data, and so forth. Teachers and other school personnel, therefore, must have the expertise to use a variety of technologies in ways that will more effectively expand learning opportunities to educate our nation's children.

Ensure that schools have the capacity to encourage and implement interdisciplinary learning, team-based learning, block scheduling, and other innovative strategies. In other words, schools need to rethink the design of teaching and learning space to be more student-focused and effective.

These are five recommendations that will improve our public school system and, thus, the quality of the education our children receive. Yet, I am well aware that implementing these suggestions is easier said than done. Our system of education is multi-layered, extremely complex, and serves a huge segment of our society (55,000,000 K -12 children over a period of at least 12 years). Efforts to change the American education paradigm must reflect that complexity and that is what I have attempted to do with these five recommendations.

Our modern world is a different world, with different needs and demands Our education system—P-20—must educate students to understand the rapidity, scope, and depth of the changes that are redefining the 21st century and the implications they will have for our future And, when do we start? We start with building that foundation in preschool and nurturing it all the way through graduate school

Implemented individually, the above recommendations will bring about incremental change in our schools. Collectively, they have the potential to transform our education system to enhance every child's schooling. These recommendations are not designed as a one-size-fits-all solution, but as a comprehensive set of reform proposals to be used based upon the particular needs identified within schools that want to transform themselves They cannot be accomplished without adequate resources such as time, expertise, and funding, as well as a commitment from the full community to ensure their realization They are based on an acceptance of a mutual desire and responsibility—at home, at school, and within the community—for assuring a stronger commitment to improve the quality of schooling and, thus, improve the quality of education each child receives As Lawrence Cremin (1977) said many years ago, "Public schools democratize America by assuring every child the right to be educated." (p. 45) Even as schools all over the world adopt online and mediated learning strategies, the common denominator will always be the quality of education each child receives

Many of our education institutions are in fact responding to societal change and understand that education is the key to maintaining America's position in the global community. But the response is not widespread. Are we prepared to change on a grand scale? Are we willing to transform our national education system? Our response must be, "Yes! We hear the call and understand the message." By working together, within our reach is the capacity and commitment to address successfully the challenges facing America's education system and the nation as a whole

As I consider this issue, I am reminded of an anonymous quote I heard recently about a locked door: "Some see a door locked and walk away Others see the door locked and look for a key. Still others see the door locked and make a key to open the door" As we begin this school year or the next, we may find the door to transforming our education system still "locked" We may not find a key right away. But, we must not walk away! We must work together to make a key to open the door to transform our education system and, thus, reach within and welcome the challenge of providing this generation of children and future generations the best education possible So, let's make the key together and open the door to a quality education for all of America's children!

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